STREETLIGHT RETROFIT PROJECT

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...CLOSE ENCOUNTERS OF THE STREETLIGHT KIND.

Inspired by Comi-Con International
OUTLINE

• Why Streetlights?
  CV Energy Statistics
  Streetlight Inventory

• Streetlight Retrofit Project
  Assessment Phase
  Residential Streets (Phase 1)
  Financing

• Lessons Learned
  Next Steps

MUNICIPAL (ENERGY) STATISTICS

• 700+ energy utility meters
• Annual electricity use = 18 million kWh
• Streetlights = 38% of electricity use
CURRENT STREETLIGHT INVENTORY

- 9,000 streetlight luminaires
  - 4,600 100-Watt HPS (residential streets)
  - 3,800 250-Watt HPS (arterial streets)
  - 600+ various wattages

STREETLIGHT ASSESSMENT PROJECT

- Pilot Phase began in 2008
- Solicited products for testing from vendors
- Arterial roadway in new development
STREETLIGHT ASSESSMENT PROJECT

- 32 test fixtures (20 LED, 10 Induction, 2 HPS)
- Preliminary specifications for participants

STREETLIGHT ASSESSMENT

- Assessment metrics
  - Performance
  - Light Quality
  - Reliability
  - Aesthetics
  - Serviceability
  - Energy consumption
  - Cost

- LED technology chosen
  - Mimic HPS light patterns
  - Greater controllability
  - Energy savings
RESIDENTIAL STREETS (Phase 1)
• Replace 4,600 100-Watt HPS fixtures
• Design Build RFP
• Contractor solicit & rank LED fixtures
RESIDENTIAL STREETS

- Gross Project Costs $2,281,000
- Utility Rebate Amount $230,000
- Annual Energy Savings 900,000 kWh
- Finance thru CEC Loan 1% interest rate 10-yr simple payback

LESSONS LEARNED
- Require independent, 3rd-party testing
- Work w/ IOU on rebate eligibility & tariff switch
- Warranty should be 10+ years
- Local purchasing & hiring
- Have contractor receive rebate directly
- Involve Planning Dept staff for future development
- Communicate with stakeholders!
ARTERIAL STREETS (Phase 2)
• Planned for Fall 2011
• Replace ~3,000 250-Watt HPS fixtures
• Finance w/ Qualified Energy Conservation Bonds

QUESTIONS?